WHAT IS CLAIMED IS:

1.   A computer system comprising a plurality of computers, a storage control apparatus connected with the plurality of computers on a channel path and for performing input and output through the channel path, and a storage device under the control of the storage control apparatus for storing input/output data of the computers;

wherein said storage control apparatus classifies the plurality of channel ports of the storage control apparatus to which the channel path is connected into priority channel ports and non-priority channel ports, so that channel ports defined as priority channel ports carry out I/O processing without suppressing the processing of I/O from the computers; and

channel ports defined as non-priority channel ports are given a target value in I/O process units and carry out processing while performing feedback control so that I/O processing from the computers approaches the I/O process units; and

wherein the storage control apparatus controls the level of the influence of the non-priority channel port I/O processing on priority channel port I/O processing.

2.   The computer system according to claim 1, wherein the storage control apparatus defines a target value of I/O processing units for the priority channel ports, and carries out I/O processing at the non-priority channel ports while performing feedback control so that the I/O processing of the priority channel ports approaches the target value in I/O process units; and the storage control apparatus controls the level of the influence of the non-priority channel port I/O processing.

3.   The computer system according to claim 1, wherein the storage control apparatus determines, when the I/O frequency of the channel port set as a priority channel port is less than the threshold value, a threshold value for not suppressing I/O processing of non-priority channel ports and does not suppress I/O processing of the non-priority channel port, whereby the I/O processing capacity of the storage control apparatus is sustained.

4.   The computer system according to claim 2, wherein the storage control apparatus determines, when the I/O frequency of the channel port set as a priority channel port is less than the threshold value, a threshold value for not suppressing I/O processing of a non-priority channel port and does not suppress I/O processing of the non-priority channel port, whereby the I/O processing capacity of the storage control apparatus is sustained.

11

5.   The computer system according to claim 1, wherein the storage control apparatus classifies hosts into priority hosts and non-priority hosts in units of computers sending I/O processing requests to the storage control apparatus, or in computer path units such as a World Wide Name, and executes I/O processing of non-priority hosts while performing feedback control so that the I/O processing of the non-priority hosts approaches the I/O process units within a single channel port and among channel ports; and the storage control apparatus controls the level of influence of non-priority host I/O processing on priority host I/O processing.

6.   The computer system according to claim 1, wherein the storage control apparatus classifies devices into priority devices and non-priority devices in units of storage devices performing I/O processing within the storage control apparatus, and executes I/O processing of non-priority devices while performing feedback control so that the I/O processing of the non-priority devices approaches the target I/O processing unit; and controls the level of influence of non-priority device I/O processing on priority device I/O processing.

7.   The computer system according to claim 6, wherein the storage control apparatus classifies the storage area in the storage device into priority and non-priority areas, and executes the I/O processing of non-priority areas while performing feedback control so that the I/O processing of non-priority area approaches the target I/O processing unit; and controls the level of influence of non-priority area I/O processing on priority area I/O processing.

8.   A storage system comprising:
a storage control apparatus including a plurality of ports connected with a plurality of computers and a controller for controlling the I/O from the computers; and
a storage apparatus including a plurality of storage devices for storing I/O from the computers received by the storage control apparatus;
wherein the controller is provided with a priority information table holding one of a priority or a non-priority value for each of the ports; and the priority information table delays by a predefined time the start of I/O processing received by ports having non-priority values.

9.	A storage system comprising:

a storage control apparatus including a plurality of ports connected with a plurality of computers and a controller for controlling the I/O from said computers; and

a storage apparatus constituted by a plurality of storage devices for storing I/O from the computers received by said storage control apparatus;

wherein the controller is provided with a priority information table containing a priority or non-priority value for each of the computers; and said priority information table delays by a predefined time the start of I/O processing received from computers having non-priority values.

10.	A storage system comprising:

a storage control apparatus including a plurality of ports connected with a plurality of computers and a controller for controlling the I/O from the computers; and

a storage apparatus including a plurality of storage devices for storing I/O from the computers received by the storage control apparatus;

wherein the controller is provided with a priority information table containing one of a priority or non-priority value for each of the storage device units; and the priority information table causes delays by a predefined time of the start of I/O processing for storage devices having non-priority values in the priority information table.

11.	A storage control apparatus for controlling the input and output of information from a plurality of computers through a plurality of ports, comprising:

a storage device connected to the storage control apparatus and storing input data from the plurality of computers;

wherein the storage control apparatus includes apparatus to set I/O processing target values per unit time of data for the plurality of ports; and

an I/O feedback controller for bringing the amount of I/O processing of the plurality of ports to approach the I/O processing target value.

12.	A storage control apparatus in a computer system wherein the storage control apparatus controls input and output of data among a plurality of computers and a storage device which stores data transmitted from said plurality of computers, comprising:

a plurality of ports coupled to a plurality of computers;

13

apparatus for setting I/O processing target values as a value per unit time of data for the plurality of ports; and

an I/O feedback controller configured to bring I/O processing at said plurality of ports to approach the I/O processing target value.